Pre-Algebra Final Exam

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MATH

Pre-Algebra Final Exam

This exam is comprehensive over the entire course and includes 12 questions. You have 60 minutes to complete the exam.

The exam is worth 100 points. The 8 multiple choice questions are worth 5 points each (40 points total) and the 4 free response questions are worth 15 points each (60 points total).

Mark your multiple choice answers on this cover page. For the free response questions, show your work and make sure to circle your final answer.

1. (5 pts)	A	B	C	D	E
2. (5 pts)	A	B	C	D	E
3. (5 pts)	A	B	C	D	E
4. (5 pts)	A	B	C	D	E
5. (5 pts)	A	B	C	D	E
6. (5 pts)	A	B	C	D	E
7. (5 pts)	A	B	C	D	E
8. (5 pts)	A	B	C	D	E

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1. (5 pts) Which divisibility rule applies to 212?

A Divisible by 3

B Divisible by 4

C Divisible by 6

D Divisible by 8

E Divisible by 9

2. (5 pts) Simplify.

$$-|7-3-2|-|-5|$$

A -7

B -3

C -1

D 3

E 7

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3. (5 pts) Find the GCF (Greatest Common Factor) of 16 and 36.

A 2

B 4

C 6

D 8

E 16

4. (5 pts) What is the prime factorization of 84?

A $2 \cdot 3 \cdot 7$

B $2 \cdot 3^2 \cdot 7$

C $2^2 \cdot 3 \cdot 7$

D $2 \cdot 3 \cdot 11$

E $2^2 \cdot 3 \cdot 11$

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5. (5 pts) Which fraction is equivalent to $14/36$?

A $\frac{2}{9}$

B $\frac{7}{12}$

C $\frac{2}{3}$

D $\frac{7}{6}$

E $\frac{7}{18}$

6. (5 pts) Perform the fraction operations.

$$\frac{1}{2}-\frac{1}{8}+\frac{5}{24}$$

A $\frac{1}{2}$

B $\frac{2}{14}$

C $\frac{7}{8}$

D $\frac{7}{12}$

E $\frac{5}{24}$

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7. (5 pts) Solve for x.

$$\frac{5}{6x} = \frac{1}{12}$$

A $\frac{1}{10}$

B $\frac{1}{2}$

C 2

D 10

E 12

8. (5 pts) Simplify the expression.

$$8 + \sqrt{20} + 3\sqrt{5}$$

A $13\sqrt{5}$

B $8 + 5\sqrt{5}$

C $8 + 2\sqrt{5}$

D $8 + 3\sqrt{5}$

E 13

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9. (15 pts) Simplify the expression and write the answer in scientific notation.

$$\frac{(2.5 \times 10^{3})(6 \times 10^{-5})}{20 \times 10^{-5}}$$

10. (15 pts) Find the sum.

$$5\frac{2}{7} + 2\frac{1}{3}$$

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11. (15 pts) At a local market, 5 oranges cost $\$2.25$. What is the unit price of one orange?

12. (15 pts) Rationalize the denominator.

$$\frac{3+\sqrt{5}}{\sqrt{5}}$$

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